SUPERIOR COURT OF THE STATE OF CALIFORNIA
FOR THE COUNTY OF LOS ANGELES

BETTY BULLOCK, Plaintiff,) No. BC 249171
vs.) VOLUME I
PHILIP MORRIS INC., a corporation; DUPAR'S RESTAURANT, a corporation; and DOES 1-100, inclusive, Defendants.

Deposition of SAMUEL P. HAMMAR, M.D., at 6225 West Century Boulevard, The Radisson Hotel, Los Angeles, California, commencing at 10:31 A.M., Tuesday, January 22, 2002, before Irma C. Hogan, CSR No. 4877.

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APPEARANCES OF COUNSEL:

FOR THE PLAINTIFF:

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SAMUEL P. HAMMAR, M.D.,
having been duly administered an oath in accordance with CCP Section 2094 was examined and testified as follows:

EXAMINATION

BY MS. TANG:

Q. Please state your name for the record.
A. Samuel Hammar, M.D.
Q. You are a pathologist; correct? 10:31:55AM

A. Yes.
Q. Good morning, Dr. Hammar. Again, thank you for flying in for your deposition today. My name is Angel Tang and I represent Philip Morris Incorporated in this lawsuit brought by Betty Bullock.
I understand that you have been retained to testify as an expert in this case. Is that correct?
A. Yes.
Q. May I have your Social Security number and date of birth, please?
A. [DELETED]
Q. What is your professional address?
A. Diagnostic Specialties Laboratory, 700 Lebo, L-e-b-o, Boulevard, Bremerton, B-r-e-m-e-r-t-o-n, Washington 98310.

Q. You have had your deposition taken many times in the past; is that correct?
A. Yes.
Q. Approximately how many times have you testified in deposition as an expert witness?
A. Over 500 times.
Q. Of these depositions, how many were given in cases involving tobacco companies?
A. Approximately ten.
Q. In those ten cases did you testify on behalf of the plaintiff or on behalf of the defendant?
A. Plaintiff.
Q. Against a tobacco company?
A. Yes.
Q. I take it then that you are familiar with the deposition process and your rights and obligations as a deponent?
A. Yes.
Q. I'd like to remind you of a few basic instructions before we begin. Is that all right?
A. Sure.
Q. If at any time during the deposition you don't understand my question, I ask that you ask me to clarify or rephrase. Okay?
A. Yes.

Q. If I don't hear otherwise, I'll assume you fully understood and heard the question.
A. All right.
Q. We have a court reporter here today. That means two things for us. First, we must take turns speaking. And second, we need to provide audible and verbal responses, in other words, no nods of the head or "Uh-uh's" or "Uh-huh's." Okay?
A. All right.
Q. During the deposition Ms. Weiss may interpose objections. Ms. Weiss is doing so to preserve the record. I ask that you continue to answer the question if you understand it. Okay?
A. Yes.
Q. If at any point during the deposition you need to take a break, feel free to let me know and we will take a short recess.
A. All right.
Q. Is there any reason why you cannot provide truthful, accurate, and complete testimony today?
A. No.

Q. Did you happen to bring a copy of your most current CV with you today?
A. Yes.
Q. May I have a copy, please? 10:34:37AM

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A. Yes. 10:34:42AM
Q. Thank you.
I would like to have Dr. Hammar's CV marked as Exhibit 1, please.
(Defendant's Exhibit 1 was marked for identification and is annexed hereto.)
BY MS. TANG:
Q. This CV is current and up to date?
A. It is relatively current. It was actually written or updated on January 2001. There have been a 10:35:24AM few insertions since then. I don't think there has been any significant information that is not included in that CV.
Q. Thank you. You are board-certified in anatomic and clinical pathology; correct? 10:35:46AM
A. Yes.
Q. And can you explain the difference between an anatomical pathologist and a diagnostic pathologist?
A. I think of an anatomic pathologist and a diagnostic pathologist as somewhat the same because an 10:36:00AM anatomic pathologist makes diagnoses.
There is a difference between anatomic and clinical pathology. Anatamic pathology deals with diagnosing diseases by looking at cells, tissues, and organs. Clinical pathology deals with evaluation of 10:36:16AM

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certain specimens that come from humans like blood, 10:36:21AM urine, et cetera.
Q. What is your affiliation with the Diagnostic Specialties Laboratory?
A. I am the president of that organization, but 10:36:37AM I am a partner in that organization with three other pathologists who are also equal partners. I am the individual who runs the Diagnostic Specialties Laboratory. I'm sometimes referred to as the director. 10:36:59AM
Q. Who are your three other partners?
A. One's name is Dr. Keith Hallman, H-a-l-l-m-a-n. One is David M. Bray, B-r-a-y, III. And the other is Richard Cox, C-o-x.
Q. What kind of work is performed at the 10:37:19AM Diagnostic Specialities Laboratory?
A. We do several things. About half of the work we do is evaluation of asbestos-related lung disease cases for attorneys, predominantly plaintiffs attorneys but not totally. 10:37:34AM
We also do diagnostic electron microscopy in which we receive specimens that are examined in the electron microscope. And we receive those cases from all over the country, most of which come from the Northwest. 10:37:50AM

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We also do a type of testing referred to as 10:37:52AM diagnostic immunohistochemistry.
And then I receive about 200 to 500 cases a year that are sent to me from other pathologists or sometimes other medical doctors in consultation. 10:38:14AM
Q. Can you give me a general description of what

electron microscopy and diagnostic immunohistochemistry are?

A. Sure. The electron microscope is different than the ordinary light microscope in that the tissue is processed differently. And instead of using ordinary light from a light bulb as a source of light, the electron microscope uses a source of electrons that boil off a filament which is at the top of the electron microscope. 10:38:40AM 10:39:00AM

Instead of using glass lenses like a light microscope, the electron microscope uses electromagnetic lenses.

And the main difference is that you cut the tissue very thin to evaluate it in an electron microscope and you can see things with the electron microscope that you cannot see with the ordinary light microscope. You can magnify a specimen over a million times if you desire. And the resolution, which means the ability to see two separate points as distinct 10:39:12AM 10:39:28AM

points, is five times ten to the minus ten meters. 10:39:31AM

And what that means is that you can see very tiny individual structures that are very close to one another. And what this lets you do is look inside cells. And you can make diagnoses with the electron microscope that you cannot make with an ordinary light microscope. 10:39:46AM

With respect to the question about diagnostic immunohistochemistry, we use that technique primarily in evaluating tumors that are difficult to diagnose by conventional methods. And that involves making antibodies that are directed against substances either on the surface of cells or inside cells and then react on an unknown tumor with those antibodies and determine what profile that tumor shows. 10:40:01AM 10:40:22AM

And by determining that, you are sometimes able to tell exactly what type of cancer you are dealing with, which you cannot tell by ordinary diagnostic techniques like looking at the cancer through an ordinary microscope. So it's used primarily in tumor diagnosis. 10:40:39AM

Q. You have received special training in both of these diagnostic techniques?

A. Yes. When I was a resident, I received specialized training in electron microscopy. And it also happened that I went to medical school at a time where we were extensively trained in what's called ultrastructural anatomy, which means the anatomy of cells at the electron microscopic level. 10:40:54AM 10:40:59AM

In immunohistochemistry I also received extensive training in that because I came along when that technique was just being introduced in the late 1970s and early 1980s. 10:41:14AM

Q. What percentage of your professional time is spent working at the Diagnostic Specialties Laboratory? 10:41:32AM

A. I actually spend a hundred percent of my time there, but I do hospital pathology. I'm on the staff of the hospital in Bremerton, Washington, which is Harrison Memorial Hospital. And I look at many or most of the lung cases that are sent to our anatomic laboratory. But I would look at those usually in my 10:41:48AM

office which is about two blocks away from the hospital.

Q. What percentage of your work is not related to your work for Harrison Hospital? 10:42:04AM

A. About 80 percent.

Q. How much of that 80 percent is spent in litigation consultation?

A. About 50 percent. 10:42:27AM

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Q. You mentioned earlier that most of your litigation consulting work is done for cases related to asbestos; is that right? 10:42:30AM

A. Yes.

Q. What percent of your litigation consulting work is related to tobacco? 10:42:39AM

A. Less than 1 percent.

Q. Typically how many litigation consulting cases do you receive per year?

MS. WEISS: Objection. Vague, ambiguous. You mean in total? Are you talking about tobacco? 10:43:01AM

BY MS. TANG:

Q. Typically in an average year all your litigation consulting cases.

A. The majority of them are asbestos cases. And over the 16 years that I've been doing it, the average would be about 350. And the range would be from a low of about 100 to a high of about 650. 10:43:10AM

Q. You stated that you have been consulting for litigation cases for the past 16 years? 10:43:33AM

A. Yes. I started in October of 1985.

Q. Typically what percentage of your annual income is derived from litigation consulting?

A. It's difficult to give you a precise number because the way our organization works is that all of 10:44:04AM

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the income made by the entire organization is divided equally among the partners after the expenses are paid. 10:44:08AM

Last year -- or I should say in 2000 the total income I made from asbestos litigation was $70,000. This past year it would probably be closer to about $100,000. 10:44:22AM

Q. Are you excluding tobacco consulting cases?

A. It would be kind of included in there. The number of tobacco cases that I've been involved in compared to the asbestos is very few. 10:44:40AM

Q. Your total billings for work on litigation matters in the year 2000 averaged $70,000?

A. No.

MS. WEISS: Objection. Misstates testimony. Assumes facts not in evidence. 10:45:06AM

THE WITNESS: No. The amount of income I made was $70,000. I think the gross receipts in the year 2000 were about $600,000. But we have a significant amount of overhead and we pay our personnel out of that money. 10:45:20AM

BY MS. TANG:

Q. What about the gross receipts in 2001?

A. I don't know exactly what that's going to come out since our accountant hasn't provided that 10:45:32AM

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information yet. It would be, I think, probably a little bit more than $600,000. 10:45:35AM

Q. Overall in how many litigation cases have you acted as an expert consultant?
A. It would probably be about 4,000 cases. And by that I mean basically cases that I have reviewed. Of course, not all of those would I have given a deposition or gone to trial. 10:45:47AM
Q. Of the 4,000 litigation cases, would you say about 1 percent was tobacco-related disease? 10:46:07AM
MS. WEISS: Objection. Leading question.
THE WITNESS: It would be less than that.
BY MS. TANG:
Q. How many times have you testified at trial as an expert witness? 10:46:55AM
A. I would estimate over the 16 years about 150 times.
Q. Just backtracking for a second.
In the approximately 4,000 litigations cases that you have acted as an expert witness on, you have typically been retained by the plaintiff? 10:47:24AM
A. The majority.
MS. WEISS: Objection. Misstates testimony.
THE WITNESS: The majority of them I would have. I started out working for the chief attorney 10:47:37AM

for the Johns Manville Corporation. And the first few years that I did the asbestos, it was for the defense primarily. 10:47:41AM
But then because the individual who hired me for the defense put on conferences, many of the plaintiff attorneys came so I started doing more work for them over the years. Now it would be probably about 99 percent plaintiff work, 1 percent defense work. 10:47:52AM
BY MS. TANG: 10:48:08AM
Q. What have you been asked to do in this case?
A. Review the pathology materials and the medical records on Betty Bullock and to determine what disease process she had and if cigarette smoking was a cause of that disease process. 10:48:35AM
Q. Has your assignment changed at all over time?
A. No.
Q. Do you anticipate that your assignment will change at all between now and trial?
A. No. 10:48:47AM
Q. When did you first become involved in this case?
A. We first received material in this case on August 21, 2001.
Q. You received materials from whom? 10:49:07AM

A. The medical records were sent to us from Paula Lawlor, who is an assistant at Mr. Piuze's office. The pathology materials came directly from the Hoag Memorial Hospital. And those came on December 4, 2001. 10:49:09AM 10:49:32AM
Q. You have worked with Mr. Piuze and representatives of his office in the past; correct?
A. Yes.
Q. And in how many cases have you been retained to work by Mr. Piuze's office? 10:49:55AM
A. Once.
Q. Is that the Boeken case?
A. Yes.

Q. You stated that you received correspondence from Ms. Paula Lawlor? 10:50:23AM
A. Yes.
Q. May I have a copy of that correspondence, please?
A. Yes.
Q. If you can generally summarize for me what was said in that correspondence. 10:50:30AM
A. Sure. The initial letter that I received which was dated on Mr. Piuze's stationery was August 16, 2001. And it stated that Mr. Piuze's office represented Betty Bullock who was 62 years old 10:51:26AM

who had been diagnosed with small cell lung cancer on February 19, 2001. 10:51:30AM
The letter also stated that Betty Bullock's cancer had metastasized to her liver.
It stated that there was no date of the trial as yet and that the case was currently in federal court awaiting the judge's ruling on Mr. Piuze's office motion for a remand to state court. Ms. Lawlor stated that hopefully a trial would occur within six to nine months. 10:51:46AM 10:52:06AM
And then in the last paragraph of the letter she asks me if I would consult with them. And I wrote a letter back to her indicating that I would.
Q. So just to clarify, this letter is dated August 16? 10:52:27AM
A. Yes.
Q. 2001?
A. Yes.
MS. TANG: I'd like to mark this letter as Exhibit 2, please. 10:52:34AM
(Defendant's Exhibit 2 was marked for identification and is annexed hereto.)
BY MS. TANG:
Q. Have you spoken with anyone from Mr. Piuze's office regarding Ms. Bullock's case prior to your 10:52:51AM

receipt of this letter? 10:52:55AM
A. Not that I recall. That doesn't mean that somebody in my office may have not spoken with them. But not that I recall.
I have an assistant whose name is Michaele, M-i-c-h-a-e-l-e, Stoll, S-t-o-l-l, that I give a great deal of responsibility to, so it's probably likely that she may have. 10:53:04AM
Q. You stated that you responded to Ms. Lawlor's letter by correspondence; is that right? 10:53:35AM
A. Yes.
Q. Was that your next contact with a representative of Mr. Piuze's office?
A. Yes.
Q. Do you have a copy of that letter with you today? 10:53:43AM
A. I do.
Q. Again, can you describe the substance of your subsequent communication with Mr. Piuze's office?
A. I wrote a letter to Ms. Lawlor dated August 23, 2001, stating that I was responding to her letter that was dated August 16, 2001, to let them know that I would participate in the Betty Bullock case, whom they stated was diagnosed with small cell 10:53:57AM

lung cancer on February 19, 2001. 10:54:19AM

MS. TANG: I'd like to mark this letter as an exhibit. 10:54:23AM

(Defendant's Exhibit 3 was marked for identification and is annexed hereto.)

BY MS. TANG:

Q. Did you correspond with Mr. Piuze's office in any manner between the time you received their letter of August 16 to the time you responded with your letter of August 23?

A. No. 10:54:55AM

Q. Please tell me in detail about all of your subsequent communications with Mr. Piuze's office.

MS. WEISS: Objection. Somewhat vague and ambiguous. You mean his office? Him personally? Or does that include members of his staff? 10:55:12AM

BY MS. TANG:

Q. Whatever you have records of.

A. I received another letter from Ms. Lawlor dated September 7, 2001, thanking me for agreeing to consult in this case. And in that she stated that she was sending me the pertinent medical records, which we received. 10:55:26AM

The letter also stated that the case had recently been remanded back to state court and that there was a motion to expedite the trial and that 10:55:41AM

motion was going to be heard on September 26. I didn't respond to this one way or the other. 10:55:44AM

The next information I received was from Ms. Weiss, which was dated November 12, 2001, which states that the trial had been set for February 13, 2002. 10:56:03AM

Ms. Weiss stated that she recently talked to my assistant and my assistant suggested that she send the following medical records which we had already received, the pathology materials and reports corresponding to those, and a brief summary of Betty Bullock's pertinent medical history which is attached to this letter which is dated November 12, 2001. 10:56:23AM

Q. Thank you.

I'd like to mark the letter dated September 7, 2001, from Ms. Lawlor to Dr. Hammar as Exhibit 4, and the letter dated November 12, 2001, to Dr. Hammar which is two pages long as Exhibit 5. 10:56:55AM

(Defendant's Exhibits 4 and 5 were marked for identification and are annexed hereto.)

BY MS. TANG:

Q. You received the medical records from Mr. Piuze's office twice?

A. No. Once.

Q. Do you have correspondence reflecting your receipt of pathology materials from Hoag? 10:58:14AM

10:58:16AM

A. I do. But I also have this letter right here which is actually a copy that was sent to the Hoag Memorial Hospital from Ms. Weiss that has to do with release of pathology materials and my agreement to have those sent back to them no later than the end of December 2001. 10:58:30AM

MS. TANG: I would like to have this letter dated November 21, 2001, to Hoag Memorial Hospital

from Dena Weiss of the Law Offices of Michael Piuze as next exhibit in order, Exhibit 6. 10:59:15AM

(Defendant's Exhibit 6 was marked for identification and is annexed hereto.)

BY MS. TANG:

Q. Have you had any other communications with Mr. Piuze or a representative of his office regarding this lawsuit or your deposition? 10:59:46AM

MS. WEISS: I'd like to object insomuch as he has not testified that with regard to this case he's had any communications so far with Mr. Piuze. In that respect it misstates his former testimony that he actually had any specific communications with Mr. Piuze to date in this deposition. 10:59:59AM

THE WITNESS: Yes. I received this letter here from Ms. Weiss on November 28, 2001, that had to do with the pathology materials. And subsequently we did receive the pathology materials from the Hoag Memorial Hospital which we indicated in this slip here that we fill out for every legal case that comes into our office. So I will show you both of those. 11:00:27AM 11:00:31AM 11:00:47AM

BY MS. TANG:

Q. All right. Let me hand those back to you.

Can you summarize the substance of that November 21 letter, I believe, from Ms. Weiss to you regarding the pathology materials? 11:01:04AM

A. Sure. She stated that the Hoag Hospital was unable to forward the pathology recuts, as there was no diagnostic specimen left. And she stated that Philip Morris had obtained some recuts, but there was none left for us. 11:01:21AM

And Ms. Weiss stated that Hoag Hospital had kindly agreed to release the originals on the condition that the attached guarantee is signed by myself and Ms. Weiss. And that was that other document that you saw signed which is Exhibit 6. 11:01:34AM

And then this other sheet is something that we fill out, specifically my assistant Michaele Stoll fills out, for every legal case that we receive into our office. Basically it has some demographic information concerning the patient such as name, date of birth; it has the attorney who asks us to do the work; it has the date that we originally received any information, which was August 21, 2001. 11:01:54AM 11:01:57AM

It also lists the pathology materials that we receive, which in this case were four slides from the Hoag Memorial Hospital on December 4, 2001. 11:02:12AM

It indicates the number of hours it took for me to review the entire case, which in this case happened to be three hours.

And it also has some notes in here that we received the pathology material from Hoag on December 4, 2001, and that I had signed an agreement to return the slides to the Hoag Memorial Hospital by December 31, 2001, which I did. 11:02:29AM

Q. Thank you, Dr. Hammar. 11:02:50AM

A. Sure.

MS. TANG: I'd like to mark the November 21 letter from Dena Weiss to Dr. Hammar regarding the pathology materials as Exhibit 7.

And Exhibit 8, the document Dr. Hammar just 11:03:18AM

testified to. It is a document on Diagnostic Specialties Laboratories letterhead and it has basic identifying information and inventory of the pathology slides received by Dr. Hammar's office.

(Defendant's Exhibits 7 and 8 were marked for identification and are annexed hereto.)

BY MS. TANG:

Q. Are there any other communications that you have had with any representative of Mr. Piuze's office that we have not yet covered?

A. Yes.

Q. Can you tell me about those communications, please?

A. The next communication was a letter addressed to me by Tracy, T-r-a-c-y, Sorokin, S-o-r-o-k-i-n, secretary to Michael J. Piuze, dated December 24, 2001, which concerns the Bullock versus Philip Morris case. And in the first three paragraphs it talks about the trial which had initially been scheduled for February 13, 2002, in Department 52 of the L.A. County Superior Court.

And then the next paragraph under the heading "Trial" stated that the case might not commence as scheduled because Philip Morris had removed the case to the U.S. District Court. And Mr. Piuze's secretary stated that their request that the case be returned to the state court may be heard soon enough for the trial, but it may not.

And then I was asked if I'm not going to be available between February 21 and July 1 that I let them know as soon as possible.

Then the next major heading in this letter which is near the bottom of the first page has to do with depositions and stated that Philip Morris had requested deposition from all 13 of the expert witnesses designated by Mr. Piuze's office and that they had a copy of the Notice of Deposition which was enclosed, which I have right here.

That is a three-page document that was signed by John L. Carlton, attorneys for the defendant Philip Morris Incorporated. So that would be the next correspondence I had from their office.

Q. Thank you.

I'd like to mark this as the next exhibit in order.

(Defendant's Exhibit 9 was marked for identification and is annexed hereto.)

BY MS. TANG:

Q. Let's proceed to the next communication.

A. The next one is dated January 16, 2002. And it was a fax addressed to me from --

Q. I'm sorry to interpret you. Did you respond to the December 24 letter written to you by Tracy Sorokin?

A. No.

Q. In any manner?

A. No. I made note of it, but I didn't respond.

Q. All right. Sorry to interrupt.

A. That's okay. The next document I received is by fax and that was from Sonia E. Revolorio,

R-e-v-o-l-o-r-i-o, assistant to Mr. Piuze. And that has to do with the deposition that was going to take place here today at the Radisson Hotel with an explanation of why the deposition was going to take place here rather than at the airport.

And attached to this is something that my assistant filled out which is our form called "Deposition Confirmation Sheet." And I did not do that, she did.

Q. All right. Thank you. 11:08:43AM

I would like it marked as the next exhibit in order.

(Defendant's Exhibit 10 was marked for identification and is annexed hereto.)

BY MS. TANG: 11:08:59AM

Q. Any other communications or correspondence that we have not yet covered?

A. The only other is this mail message that was, it looks like, faxed to us from Paula Lawlor to me on November 27, 2001, asking if I could please e-mail her 11:09:17AM

a copy of my CV and fee schedule, which we did. And 11:09:24AM the fee schedule which has not been shown yet is right here. And I need to get that back because that's what I use to give my assistant.

Q. Okay. 11:09:39AM

I will have marked as the next exhibit in order the e-mail message from Paula Lawlor to Dr. Hammar requesting a copy of Dr. Hammar's CV and fee schedule.

(Defendant's Exhibit 11 was marked for identification and is annexed hereto.)

BY MS. TANG:

Q. And, Dr. Hammar, I will return this next page to you. But basically it states that your deposition testimony fee is $500 an hour and your fee for review 11:10:09AM of slides and medical records is $250 an hour.

A. That's correct. Thank you.

Q. Have you had any other correspondence with a representative of Mr. Piuze's office?

A. No. 11:10:41AM

Q. At any time did you speak on the telephone with any representative of Mr. Piuze's office?

A. Not that I recall, no.

Q. Have you communicated with any other person regarding Ms. Bullock's case? 11:10:59AM

A. No. 11:11:02AM

Q. Have you spoken with Ms. Bullock's treating physicians?

A. No.

Q. Do you plan to speak with Ms. Bullock's 11:11:09AM treating physicians before trial of this case?

A. No.

Q. Have you spoken with Ms. Bullock?

A. No.

Q. Have you met Ms. Bullock? 11:11:19AM

A. No.

Q. Do you plan to meet Ms. Bullock before trial of the case?

A. I don't necessarily plan to do it. I mean there's always a chance that that could happen if she 11:11:29AM attends the trial and I'm there.

Q. Were you involved in Ms. Bullock's diagnosis?
A. No.
Q. Were you involved in Ms. Bullock's treatment?
A. No. 11:11:43AM
Q. I take it you have never examined Ms. Bullock?
A. That's correct.
Q. Do you plan to examine Ms. Bullock before the trial? 11:11:59AM

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A. No. 11:11:59AM
Q. Do you know Dr. David Burns?
A. No.
Q. Do you know of him through reputation?
A. No. 11:12:11AM
Q. Do you know Dr. Feingold?
A. Yes.
Q. How do you know Dr. Feingold?
A. He and I have participated in two or maybe three previous tobacco cases where he has also worked on behalf of the plaintiff. 11:12:31AM
Q. Do you recall the names of those tobacco cases?
A. One was Boeken, of course. And the other one -- I think he may be involved in the Lucier case, but I'm not positive about that. 11:12:52AM
Q. Have you met Dr. Feingold?
A. I don't think I've met him in person. I've talked to him on the phone a couple of times. Probably more than a couple of times. And I have seen a few of his reports. But I don't believe I have met him personally yet. 11:13:20AM
Q. Have you discussed Ms. Bullock's case with Dr. Feingold?
A. No. 11:13:36AM

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Q. Do you plan on discussing Ms. Bullock's case with Dr. Feingold? 11:13:37AM
A. There is a possibility that that could happen, although to my way of thinking this is a very straightforward case and it seems somewhat unlikely that that would happen. 11:13:51AM
Q. Under what circumstances do you think it would be necessary for you to communicate with Dr. Feingold about Ms. Bullock's case?
A. About the only way that -- reason that I think we would communicate would be if there was some difference of opinion, say, by a defense expert with respect to the diagnosis in this case. 11:14:16AM
Q. You stated earlier that you have spent a total of three hours on this matter so far? 11:14:38AM
A. Yes.
Q. I'm sorry. I just read this a minute ago, but let me ask you this question. How much do you bill Mr. Piuze for each hour of work that you --
A. $250 an hour. 11:14:52AM
Q. So your total billings so far are $750?
A. That is correct.
Q. Doctor, please list all the work you have done to date on this case, providing a breakdown of the time that you spent on each task. 11:15:09AM

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A. I don't look at it that way, but I'll try to 11:15:13AM

do my best. Basically what I --
Q. You can divide it in whichever way is most suitable to your explanation.
A. Fine. Thank you. Basically what I usually do is I will initially read the letters that I receive from the attorney's office and will review any type of information they give me, for example, that one summary letter that was there concerning Ms. Bullock's smoking history and some of her medical history. 11:15:23AM 11:15:38AM
After that I generally review the medical records and reports, which would be those that are in my file here and which I have described in my own report.
After that I review the pathology materials, which are the four slides that are discussed in my report and which are listed on the front page of my report which represented cytology specimens and one bronchial biopsy specimen. 11:15:54AM
And then finally I would summarize all the information that I had thought was important in the summary statements, which would be the last page of my report, or however many pages it took, and then I would write a cover letter to the person who sent me the case, which in this case was Paula Lawlor. 11:16:13AM 11:16:30AM

All of that took three hours. I would say it probably took two hours, two and a half hours to review the medical records and reports and only half an hour to review the pathology materials. 11:16:35AM
Q. Have you reviewed the radiology in this case? 11:16:55AM
A. I have not reviewed the radiographs themselves. I have reviewed some of the radiology reports. And the ones I have reviewed are designated or indicated in my report.
Q. Those were the ones included in the medical records sent to you? 11:17:22AM
A. Yes.
Q. Have you reviewed any expert reports prepared by any other plaintiff's expert in this case?
A. No. 11:17:33AM
Q. Have you reviewed any of the deposition transcripts taken in this case?
A. No.
Q. Have you reviewed any of the pleadings or other legal papers submitted in this matter? 11:17:44AM
A. No.
Q. Have you reviewed the Complaint in this case?
A. No.
Q. The interrogatories or requests for production of documents? 11:17:58AM

A. No. 11:17:59AM
Q. Did you review any medical literature in your preparation of this case?
MS. WEISS: Objection. Vague and ambiguous as to medical literature. Are you talking outside the medical records? 11:18:09AM
THE WITNESS: Not that I specifically sat down and rereviewed. But over the years I review a phenomenal amount of medical literature about neuroendocrine neoplasms of the lung, which small cell carcinoma is one of them. 11:18:30AM
I have written about this type of tumor

extensively. I've got several photographs of this type of cancer in the book, which I actually have with me today if you want to see it. 11:18:51AM

I have given lectures about this type of tumor. I have been one of the individuals who helped formulate the current W-H-O classification of lung cancers in which we talk about small cell lung cancer.

I have done extensive electron microscopic evaluation of this type of tumor. I have done extensive immunohistochemical evaluation of this tumor. 11:19:11AM

I have been an author on a paper on which we did some in situ hybridization type studies on small cell lung cancer. 11:19:26AM

So I've done a lot of work on this tumor in the past. But I didn't sit down specifically and review any articles on small cell lung cancer for this deposition. 11:19:31AM 11:19:41AM

BY MS. TANG:

Q. Thank you. Are there any other tasks that you performed in preparing for this deposition in this case that we have not yet covered?

A. No. 11:20:03AM

Q. Let's take them one at a time and let me get a general sense of -- better feel of what exactly it is that was done. Starting with your review of the medical records and reports in the medical records, do you have a list of the records that you received from Mr. Piuze's office? 11:20:16AM

A. There is no specific list, but they are referred to in my report.

Q. Okay. Did these records come to you at once?

A. Yes. 11:20:31AM

Q. You received those records on November 12, 2001; is that right?

A. Yes.

Q. Do you know approximately how many pages of records you received or do you know how many inches thick the package was? 11:20:56AM 11:20:59AM

Actually, looking at this correspondence date of November 12 from Ms. Weiss to you, Dr. Hammar -- and it is Defendant's Exhibit 5 -- I believe it says that you received the letter -- the medical records on September 7. 11:21:44AM

A. I think that's right. I think -- and I answered your question incorrectly. I thought that that was the date. I'm sorry.

Q. So you have not received any medical records pertaining to Ms. Bullock subsequent to September 7? 11:22:04AM

A. That is correct. There are approximately 30 pages of records and reports, some of which are duplicates of each other.

Q. Did you designate the particular medical records that you wanted to review? 11:22:53AM

A. No.

Q. These 30 pages were selected, to the best of your understanding, by a representative of Mr. Piuze's office? 11:23:06AM

MS. WEISS: Objection. He said approximately 30 pages. Don't pigeonhole him like that.

THE WITNESS: Yes.

BY MS. TANG:
Q. Do you happen to have the medical records here with you today? 11:23:15AM
35
A. Yes.
Q. You received them by mail; is that correct?
A. Yes.
Q. Did you review all the medical records? 11:23:29AM
A. I did, yes.
Q. All right. Thank you. Let's move on to your examination of the pathology.
A. All right.
Q. Can you identify the pathology that you reviewed? 11:23:46AM
A. Yes. I reviewed a total of four slides. And they are described in my report beginning on Page 5.
One of the glass slides I reviewed was designated as 11362-86. And it corresponded to a pathology report bearing that number from the Hoag Memorial Presbyterian Hospital, accession date September 23, 1986. And that -- 11:24:01AM
Q. I'm sorry, can I interrupt?
A. Sure.
Q. May I have a copy of that report? Or is that the only copy that you have?
A. That's the only copy that I have.
Q. Okay, go ahead and read it. Go ahead and testify with it. You said this pathology corresponded to a Hoag Memorial pathology report? 11:24:28AM
36
A. Yes. Accession date, September 23, 1986. And the slide represented a section of a skin lesion from the right lower eyelid. And what it showed was a -- what is called a benign skin appendage tumor, specifically referred to as a syringoma. That's s-y-r-i-n-g-o-m-a. 11:24:36AM 11:24:51AM
Q. Is that relevant in any way to your review of this case?
A. No, as far as what type of major disease she has. 11:25:09AM
Q. Okay. Thank you.
A. The next glass slide I reviewed was designated as C1226-01. And according to the pathology report bearing that number from the Hoag Memorial Hospital, this represented bronchial biopsy -- excuse me -- bronchial brushing cytologic preparation made from the left upper lobe. And this slide showed aggregates of cancer cells having the cytologic appearance of a small cell lung cancer. 11:25:24AM 11:26:01AM
The next slide reviewed was designated C1228-01 which corresponded to a pathology report bearing that number --
Q. And again, this is a pathology report authored by a pathologist at Hoag Memorial Hospital? 11:26:19AM
37
A. That is correct, yes. And this cytology slide represented bronchial washing cytology. And it also showed aggregates of neoplastic cells characteristic of a small cell lung cancer. 11:26:21AM 11:26:39AM
And then the final slide I reviewed was designated as 3042-01. And the pathology report bearing that number from the Hoag Memorial Hospital

stated that it represented a left upper lobe mass bronchial biopsy. And the slide I reviewed showed a small cell lung cancer.

Q. These are not recuts; correct?

A. These are the original ones that were prepared at the Hoag Memorial Hospital.

Q. These are the diagnostic slides? 11:27:15AM

A. Well, yes, that's --

Q. Slides upon which the Hoag Memorial pathology reports are based?

A. That is correct, yes.

Q. Do you recall the name of the pathologist who prepared the reports? 11:27:28AM

A. I don't recall, but I think I can tell you that. For the case that was -- the slide designated 3042-01, which was the transbronchial biopsy, that was signed out by a person whose initials were D.V.H. 11:27:51AM

Q. Denise Van Horn? 11:27:58AM

A. Let me see if I can find -- I don't think I ever saw the names of the -- yes, that is correct. Denise Van Horn, that is correct.

And the next one that was designated as 11:28:20AM 1226 -- C1226-01, that was also signed out by Denise Van Horn.

The slide designated as C1228-01 was signed out by Denise Van Horn.

And the first slide, which was the 11:28:43AM 11362-86 -- I can't find that one. I don't know what happened to that. I know I saw it.

Here it is. That was signed out by a person whose initials were M.M. I don't know who -- what that stands for or who that represents. 11:30:26AM

Q. These four pathology slides were mailed -- I'm sorry, how did you receive the slides?

A. We received them from the Hoag Memorial Hospital. They sent them directly to me. And we received them on December 4, 2001. And then we had to 11:30:43AM return them by the end of December 2001.

Q. And you are looking at a cover letter --

A. Yes.

Q. -- from Hoag regarding the pathology slides; correct? 11:30:57AM

A. That is correct. 11:30:57AM

Q. May I mark that as the next exhibit, please?

A. Of course.

Q. Thank you.

(Defendant's Exhibit 12 was marked for identification and is annexed hereto.)

BY MS. TANG:

Q. Did you do any independent tests on these pathology slides?

A. No. 11:31:44AM

Q. Did you take any photomicrographs of those slides?

A. No.

Q. Is there a reason why you elected not to conduct either staining or take photomicrographs of 11:31:59AM these slides?

A. There wasn't any material to do any staining on and I didn't think it would be appropriate for me to alter the original slides in any way.

And as far as taking photographs, I thought the diagnosis was so obvious that it wasn't necessary. 11:32:11AM

Q. If you did not have the original pathology slides, would you have elected to do staining?

A. I wouldn't unless there was some reason to do it. And if there was any question about the 11:32:30AM

diagnosis, it would be easy enough to do. But I didn't think there was any question about the diagnosis. 11:32:33AM

Q. You returned the pathology slides to Hoag; is that correct? 11:32:46AM

A. Yes.

Q. And when did you do that?

MS. WEISS: I think that's been testified to earlier.

BY MS. TANG:

Q. I know you promised to return them in December.

A. Yeah, I know. We did. It was done on December 12, 2001.

Q. Okay. Thank you. You sent those back by mail? 11:33:27AM

A. We almost always do it by FedEx, but let me just check our FedEx slips. By FedEx. That slip right there.

Q. Okay. All right. Thank you. 11:34:47AM

A. It was addressed to Denise Van Horn at the Hoag Memorial Hospital.

Q. The four slides were returned in their original condition; correct?

A. Yes. 11:35:01AM

Q. Have you examined the actual pathology in this case? 11:35:02AM

A. Yes.

Q. I'm sorry. The actual tissue specimen and tissue blocks. 11:35:11AM

A. No. They are --

Q. I'm not very familiar with the terminology. The nonslides.

A. Well, there probably would be only one block, and that would be the biopsy block unless they made a cell block from the cytology. Let me see. 11:35:21AM

No, I didn't. The only thing I reviewed was the slides. I didn't review any blocks.

Q. I think this would be a good time for me to ask you what the difference between cytology specimens are and how are they different from a biopsy. 11:36:08AM

A. The cytology specimens are variable. In this case there were bronchial brushings and bronchial washings. And in --

Q. Cytology refers to cells? 11:36:28AM

A. Cytology refers to cells, yes. Cytology means the study of cells.

And in a cytology specimen in this case what you would receive would be some fluid which would represent probably saline that was instilled into an 11:36:42AM

area of abnormality, specifically in her case the left upper lobe, that would be withdrawn and then put into a bottle and sent to a pathology laboratory for evaluation. 11:36:44AM

And the brushings actually concern this little brush that they actually put on the end of a flexible fiberoptic bronchoscope and they can get in the area of abnormality and brush it back and forth. And then they put the brush into usually formalin and would send us in a bottle the brush that would be attached there. And we would actually take out the brush and we would smear it on a slide and then stain that. 11:36:55AM 11:37:11AM

With the cytology bronchial washings we would usually make what is called a cytocentrifuge preparation where you take a portion of the specimen and put it into a cytocentrifuge and it will spin the cells. And they would spin onto an area of a slide that we stain with either a Pap stain or another type of stain. 11:37:25AM 11:37:41AM

You can make a cell block preparation if you want in which you would take some of the fluid like from the bronchial washings, centrifuge it, and any material that went to the bottom of the tube you could then take that material and put it into a clot that could be processed like a tissue specimen. 11:37:54AM 11:37:59AM

The biopsy usually would be fragments of tissue that were obtained by snipping out like an abnormal area. And those would usually be small, in this case no more than two to three millimeters in greatest dimension, and those would be submitted in a tissue paper or between two sponges in what's called a cassette. 11:38:12AM

So in the case of a biopsy, you usually have tissue fragments. In the case of a cytology specimen, you generally just have fluid or some type of a cellular preparation. 11:38:25AM

Q. Is there any reason why a cytology specimen cannot be swabbed on more than one slide?

A. No. You could do it on several slides if you wanted to. You can make several cytocentrifuge preparations if you wanted to. 11:38:54AM

Q. You also prepared a report in this case; correct?

A. Yes. 11:39:59AM

Q. May I have a copy of your report, please?

A. I'd have to have it made. I thought maybe you already received one. But I'd have to have it copied. But you can certainly have a copy of it.

MS. TANG: Let's mark that as Exhibit 13, the next in order. 11:40:13AM 11:40:16AM

(Defendant's Exhibit 13 was marked for identification and is annexed hereto.)

BY MS. TANG:

Q. Dr. Hammar, how long did it take you to prepare the report? And can you describe for me generally what went into the preparation of this report? 11:41:02AM

A. What went into the preparation was that when we receive the medical records and the slides, I initially start out using a hand-held dictaphone stating what specimens that we received and from whom they were received. That's usually given in the first paragraph. 11:41:15AM

Then after doing that I then would start 11:41:31AM

looking at the medical records and reading those and trying to summarize the information that I thought was important from the medical records.

Once I had completed reviewing the medical records and any radiology reports, things like that, I would then look at the pathology slides and would state what I saw from the -- in the pathology slides. And I would usually do that by just looking at the report, knowing that the number was correct without -- and maybe what the specimen was, but I wouldn't look at what their diagnosis was. I would try to do that independent. 11:41:45AM 11:42:02AM 11:42:05AM

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Q. I see. So that the report reflects your independent diagnosis of what you saw in the slide?

A. That is correct. 11:42:13AM

Q. Under a microscope?

A. Yes. And then once I have done that, I would then summarize all of the information that I thought was important using several summary statements, which in this case it turned out there were 18 summary statements. 11:42:27AM

And then after I did that, I would then dictate a cover letter which is basically a summary of what I reviewed, what I saw, what my opinions were. And that in this case was a little bit over a page long. 11:42:39AM

Q. How long did this report take you to prepare?

A. The entire material, including the review, the report, proofreading, et cetera, et cetera, took three hours. 11:42:57AM

Q. This is in addition to the time that you spent reviewing medical records and the pathology --

A. Right. The entire thing took three hours.

Q. What date was your report finalized and completed? 11:43:15AM

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A. December 20, 2001. 11:43:16AM

Q. What date was it sent to plaintiff's counsel?

A. December 20, 2001.

Q. Would you like to take a break?

A. Whatever you like. 11:43:58AM

Q. How about we take a five-minute break?

(Recess taken.)

BY MS. TANG:

Q. At the break, Dr. Hammar, thank you very much for making a copy of your entire file for us today. 12:24:14PM

A. You're welcome.

Q. I just want to verify. That is your entire file on Betty Bullock; is that correct?

A. Yes.

Q. And that file consists of every document that you have pertaining to your review of Ms. Bullock's case? 12:24:30PM

A. Yes.

Q. Is there anything that you did not bring with you today that pertained to your opinions in this case in any way? 12:24:40PM

A. No.

Q. All right. Let me go over the remainder of the documents that we have not yet marked from your file, if that's okay. And I have separated them into 12:24:55PM

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categories that make sense to me. 12:25:00PM
The first category consists of the medical records that you received from Mr. Piuze's office. And earlier you testified that it consists of about 30 pages of medical documents; correct? 12:25:13PM
A. Yes.
Q. These pages were transmitted to you via mail?
A. Yes.
Q. If you can take a look at the bottom page of any of the records you copied to me, you see there it says Goldstein Law Offices? 12:25:32PM
A. I do see that.
Q. Do you have any idea what that refers to?
A. No.
MS. WEISS: Objection. Calls for speculation. 12:25:42PM
THE WITNESS: No, I do not.
BY MS. TANG:
Q. Do you know who selected these 30 pages of documents for you at the Law Offices of Michael J. Piuze? 12:25:50PM
A. No.
Q. Are there any additional pages that you may have wanted to review?
A. No. I think these are totally adequate, I mean given her information. I guess the only other thing that would come up in this case is what has happened to her. And I know that she has developed liver metastases which would make her a stage -- an extensive stage disease in the small cell scheme. But other than that, none. 12:26:03PM

12:26:06PM 12:26:22PM
Q. How did you learn that she was discovered to have liver metastases?
A. I think that was transmitted in a letter that I received. 12:26:36PM
Q. Are you looking for Exhibit 2?
A. Actually, I'm looking -- is that what exhibit it was?
Q. Yes.
A. Thank you. Yes, that's correct. 12:27:12PM
Q. I take it you will review more of Ms. Bullock's records before trial. Is that right?
MS. WEISS: Objection. Calls for speculation and a leading question and calls for facts not in evidence. 12:27:35PM
BY MS. TANG:
Q. Do you plan to review additional records prior to trial?
A. No.
Q. Let me clarify something. Previously when we were talking about the work that you conducted on this case so far -- I understand that you have completed three hours of work reviewing the pathology slides and reviewing the medical records. Is that correct? 12:27:45PM

12:27:49PM
MS. WEISS: No. Incorrect. Objection. Misstates former testimony, form of the question. 12:28:00PM
THE WITNESS: The three hours actually covered everything I did, which was review the records, slides, proofread the report and everything. So it is the entire summation of what I did, which would include the review of the pathology materials, 12:28:15PM

medical records, prepare the report, proofread.
BY MS. TANG:
Q. Okay, that's where I got confused.
A. Well, that was my fault because I think I told you initially that it took two and a half hours to review the medical records and half an hour to review the pathology report. I mean the pathology material. 12:28:30PM
What I should have said was it took me three hours to do the entire job, and about three quarters of the time I spent reviewing the medical records, dictating as I go, and then the other quarter of the time was reviewing the pathology materials. 12:28:39PM
Q. Thank you. I am going to mark as the next exhibit in order the 30 pages or approximately 30 pages of medical reports included or contained in your file. 12:28:53PM

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12:28:56PM
(Defendant's Exhibit 14 was marked for identification and is annexed hereto.) 12:29:23PM
MS. TANG: This will be the next exhibit.
MS. WEISS: What is that?
MS. TANG: Plaintiff's expert witness list.
MS. WEISS: Okay.
(Defendant's Exhibit 15 was marked for identification and is annexed hereto.)
BY MS. TANG:
Q. Dr. Hammar, I have marked as the next exhibit in order Exhibit 15, a document entitled "Plaintiff's Expert Witness List." It is 11 pages in total. I am going to direct your attention to Page 8, Line 6, and ask you to read that paragraph, please. 12:30:41PM
A. "Dr. Hammar is a pathologist who is an expert in lung disease including the causes of cancer. He may testify about the pathology of cigarette-related disease and the causes of cancer, including cigarette smoking, as well as to the specific pathology in this case, the diagnosis and cause of 12:31:09PM

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12:31:22PM
"plaintiff's injury. 12:31:25PM
Dr. Hammar's hourly fee for deposition is $500. His hourly fee for consultation is $250."
Q. Thank you very much. Have you read this paragraph before? 12:31:34PM
A. No.
Q. Are you aware that this paragraph was submitted on your behalf?
A. Not specifically. But I know that this type of thing is done all the time in litigation so it's not surprising to me. 12:31:51PM
Q. Is everything in the paragraph stated accurate and correct?
A. Yes. 12:32:02PM
Q. I would like to go through that statement that you just read line by line and learn about your opinions involving every subject. And we will cover the basis of each of your opinions in just a little bit, but right now I'd like you to list your opinions. 12:32:20PM
Let's start with sentence two. You know what? Give me -- I have notes on this copy.

MS. WEISS: Give them to me. Actually I want them.
///

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BY MS. TANG:
Q. It just has highlighting and underlining and scratch on it.
A. I saw that. It seemed very appropriate to me. 12:32:47PM
Q. I will mark this same document as Exhibit 15, just to replace the one with notations.
Starting with the second sentence which states, quote, "He may testify about the pathology of cigarette-related diseases and the causes of cancer, 12:33:24PM including cigarette smoking," close parens.
Are you prepared to offer opinions regarding these subjects?
A. Sure.
Q. What are your opinions about the pathology of 12:33:38PM cigarette-related disease and causes of cancer?
A. Well, I think in this case I would probably confine myself primarily to the lung and not get into other areas, although cigarette smoke is associated with a variety of other cancers. And for a complete 12:33:54PM list of those and discussion I would refer you or anyone else to an article by Peter Boyle, B-o-y-l-e, that was published in "Lung Cancer" I think in 1996 or 1997.
With respect to the lung, you can group the 12:34:14PM

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types of diseases that cigarette smoke causes into two 12:34:16PM basic categories: The noncancerous and the cancerous.
In the case of the cancerous diseases, it's very simple. It's lung cancer. And there are four major types of lung cancer that cigarette smoke 12:34:31PM causes. And that would include adenocarcinoma, squamous carcinoma, small cell carcinoma, and large cell undifferentiated carcinoma.
The type of lung cancer that Ms. Bullock has is small cell lung cancer. 12:34:51PM
The noncancerous diseases of the lung that cigarette smoke causes include emphysema; pulmonary histiocytosis, h-i-s-t-i-o-c-y-t-o-s-i-s, capital letter "X"; respiratory bronchiolitis; and desquamative, d-e-s-q-u-a-m-a-t-i-v-e, interstitial 12:35:16PM pneumonitis; and possibly what is referred to as usual interstitial pneumonia.
With respect to the pathologic features of all of these, I could go through and talk about every one of them although I don't think that would be 12:35:47PM probably necessary.
Q. Let's focus on what is relevant to Ms. Bullock's case.
A. In this case what is relevant is the mechanism by which cigarette smoke causes lung cancer 12:36:03PM

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and specifically the mechanism and the association of 12:36:07PM cigarette smoke and small cell lung cancer.
I would start out by saying that all types of lung cancer are caused by the carcinogens in cigarette smoke, of which there are approximately 43. The 12:36:22PM carcinogens cause lung cancer through a progressive multistage process in which there are mutations in the

genes that control cell division, the genes that can control cell death, and the genes that can control DNA repair.

Cigarette smoke also has an effect on other types of carcinogenic mechanisms which are fairly complex and I don't think need to be stated.

With respect to the types of lung cancer that cigarette smoke causes, it causes all of them. The ones that are most closely linked to cigarette smoke carcinogens are small cell cancer like Ms. Bullock has and squamous cell carcinoma, although adenocarcinoma and large cell undifferentiated carcinoma are also related to cigarette smoke carcinogens. 12:37:20PM

With respect to the question of the specific pathology, I would state that small cell carcinoma is composed of round and slightly spindle-shaped cells that are derived from cells that are normally present in the lung referred to as neuroendocrine cells. 12:37:39PM

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Small cell carcinoma when you look at it cytologically is composed of medium -- small to medium size cells that have very high nuclear cytoplasmic ratios and frequently appear in cytologic preparations as what pathologists refer to as naked nuclei. 12:37:46PM 12:38:00PM

The chromatin pattern in a small cell carcinoma cytologically is usually granular. And there are frequently more than one chromocenter, c-h-r-o-m-o-c-e-n-t-e-r. And nucleoli, n-u-c-l-e-o-l-i, are inconspicuous and usually absent. 12:38:23PM

When you look at small cell lung cancer histologically, which is a section of the tumor looked at through an ordinary light microscope, the tumor is composed of aggregates of these cells that are infiltrating normal tissue. These cells show a very high mitotic rate, show extensive degeneration and necrosis, and can show a process which is referred to as nuclear encrustation of elastic tissue in which the DNA of the dying cancer cells migrates to a blood vessel and attaches to the elastic tissue in the blood vessel wall. And that's a very characteristic appearance which was seen in this case in the biopsy specimen. 12:38:41PM 12:39:07PM

Is that enough?

Q. I think we've moved on to the second sentence of the expert declaration which talks more specifically about Ms. Bullock's pathology in this case. 12:39:23PM 12:39:26PM

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A. Okay, I'm sorry.

Q. To refocus on the first section that talks about causation of cancer in general, do you have an opinion as to what percentage of lung cancer is caused by cigarette smoking? 12:39:36PM

A. Yes.

Q. Or carcinogens in cigarette smoke? 12:39:46PM

A. In the general group of people it would be in the neighborhood of 90 to 95 percent. In the cases that I have seen of small cell lung cancer, it's 100 percent. I have never seen a case of small cell lung cancer that has not occurred in a person who was a cigarette smoker. 12:40:05PM

Q. Let's move on to the second sentence of that disclosure. And the second sentence -- I'm sorry,

part of the first sentence continues to state that you will testify, quote, "as well as to the specific pathology in this case, the diagnosis and cause of plaintiff's injury." Period, end quote.

I take it you are prepared to offer an opinion regarding the diagnosis and cause of Ms. Bullock's injury? 12:40:30PM

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A. Right. 12:40:30PM

Q. And are these opinions set forth in your expert report?

A. Yes.

Q. What are your opinions regarding first the diagnosis of Ms. Bullock's cancer? 12:40:40PM

A. Small cell lung cancer.

Q. Do you have any other opinions regarding the diagnosis of Ms. Bullock's cancer?

A. No. 12:40:54PM

Q. What are your opinions regarding the cause of Ms. Bullock's injury?

A. Cigarette smoke carcinogens were the cause of her lung cancer.

Q. Do you have any other opinions regarding the cause of Ms. Bullock's lung cancer? 12:41:06PM

A. No.

Q. Finally, Dr. Hammar, if I can direct your attention to the last sentence of that expert disclosure statement, it states that your hourly fee for deposition is $500, hourly fee for consultation is $250. And I take it that is correct? 12:41:19PM

A. Yes.

Q. Are there any other opinions or conclusions that you have reached in this case that you have not already told us about? 12:41:32PM

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12:41:34PM

A. I guess the only other conclusion would be that Ms. Bullock will die from this cancer.

Q. Anything else?

A. No. 12:41:58PM

Q. Let's turn now to the basis of each of your opinions.

A. Okay.

Q. What is the basis of your opinion that 90 to 95 percent of lung cancer is caused by carcinogens in cigarette smoking, to the extent that you have not covered that already? 12:42:38PM

A. That's what's published in the literature and some articles. That's what we've found or -- in what's called the lung cancer study group, of which I was chairman of the pathology section. And that's what I have recently seen after an evaluation of ten years of cases of lung cancer in the city I work in, which is Bremerton, Washington. 12:42:53PM

Q. Is that a research project that you're referring to? 12:43:15PM

A. It is a research project. But it actually is not so much about lung -- this type of lung cancer, other than we needed this data to complete a manuscript that I'm working on which is a rare type of lung cancer called pseudomesotheliomatous carcinoma of the lung. 12:43:29PM

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12:43:33PM

Q. Do all smokers get lung cancer?

A. No.
MS. WEISS: Objection. Calls for speculation. 12:44:25PM
BY MS. TANG:
Q. What percentage of smokers develop lung cancer?
A. If you were to take all smokers and not stratify them with respect to pack years, the maximum percentage would be about 25 percent. 12:44:30PM
Q. What percentage of small cell lung cancer patient are smokers?
A. 100 percent in my experience. 12:44:51PM
Q. Does small cell lung cancer occur in nonsmokers?
A. I have never seen a case in nonsmokers in my experience of almost 30 years as a pathologist.
Q. Are you aware of any medical literature that has documented the occurrence of small cell lung cancer in nonsmokers? 12:45:09PM
A. Not that I know of. I have asked several other pathologists about that question and nobody that I know of has ever seen a case of small cell lung cancer in a nonsmoker. 12:45:22PM

12:45:25PM
Q. From your experience and education is it possible to develop small cell lung cancer if you are a nonsmoker?
A. I think it would be possible. Another type of agent that supposedly causes small cell lung cancer is methylchloroether. 12:45:42PM
And asbestos causes lung cancer -- I mean small cell lung cancer. But I've never seen a case of small cell lung cancer in a person who has been exposed to asbestos who has also not been a smoker. 12:46:05PM
So there are potential other agents that can do it. And there is always the possibility that one of these other agents could cause a case of small cell lung cancer in a nonsmoker. I have not seen that myself. 12:46:22PM
Q. What are these other agents?
A. I just said --
MS. WEISS: Objection --
THE WITNESS: -- methylchloroether, asbestos, chromium, although chromium usually causes squamous cell carcinoma. Those are ones that kind of come to mind. 12:46:32PM
BY MS. TANG:
Q. What about exposure to radon? 12:46:59PM

A. Radon -- 12:47:06PM
MS. WEISS: Objection. Still vague and ambiguous. Which -- are we still on small cell?
MS. TANG: Yes, small cell.
THE WITNESS: Radon itself potentially could. And I should have -- that kind of jogged my memory. 12:47:13PM
There are cases of small cell lung cancer in individuals who have been exposed to radiation. Usually it's in the form of uranium miners or people who have been exposed to very high doses of radiation. I am not -- 12:47:32PM
BY MS. TANG:
Q. Do you recall whether they were smokers?
A. All the ones I have seen have been smokers.

But I think though that -- now that you have again kind of jogged memory, I think there were some cases reported of small cell lung cancer in Navaho uranium miners who were nonsmokers. 12:47:41PM

And there were cases of lung cancer in excess in the individuals who survived the atomic bomb blast in Japan in World War II. I don't know what histologic types of lung cancer those people developed, but I know that there was an increased incidence of lung cancer in that group of people. 12:48:04PM

Q. When you spoke about the Navaho uranium miners, did they develop small cell? 12:48:27PM

12:48:30PM

A. Yes --

MS. WEISS: Objection. He just --

THE WITNESS: They did, yes.

BY MS. TANG: 12:48:38PM

Q. What is the basis of your opinion that Ms. Bullock has small cell lung cancer?

A. Based on the cytologic preparations made from bronchial washings and bronchial brushings and based on the left upper lobe bronchial biopsy that she had. 12:49:06PM

Q. Anything else?

A. No.

Q. Is that properly referred to as pathology?

A. Yes.

Q. Is there anything in Ms. Bullock's medical records or in her clinical course that is inconsistent with the diagnosis of small cell carcinoma of the lung? 12:49:28PM

A. No. Everything that is in her medical records is very characteristic of small cell lung cancer. 12:49:41PM

Q. Dr. Hammar, what was the size of Ms. Bullock's lung mass at the time of diagnosis?

A. Let me get the exact size. What I'm going to say is 11 by 7.2 by about 8, but let me get the exact size. 12:49:56PM

12:50:02PM

It was about 11 by 7.7 centimeters. And there's 2.54 centimeters in an inch. So that would be about -- about 4 by 3 inches, around in there. Good-sized tumor. 12:50:41PM

Q. Is that considered an unusually large-sized mass at the time of diagnosis?

MS. WEISS: Objection. Form of the question, the phrase as used.

THE WITNESS: It would be larger than most but not at all unexpected, because if you look at small cell lung cancer, it's the type of primary lung cancer that has the fastest growth rate. The average doubling time of small cell lung cancer is 50 days. And there have been cases reported of a three-day doubling time. 12:50:58PM 12:51:13PM

BY MS. TANG:

Q. Does the patient diagnosed with small cell lung cancer usually present with metastases at the time of diagnosis? 12:51:35PM

MS. WEISS: Objection. Form of the question.

THE WITNESS: Very commonly they do because the initial thing that the doctors want to do is determine whether it's what's called localized stage or extensive stage. And almost everybody who is 12:51:49PM

initially diagnosed with small cell lung cancer undergoes bone marrow biopsies because it's such a rapidly metastatic tumor. 12:51:51PM

BY MS. TANG:

Q. Do you know whether Ms. Bullock was localized stage or extensive stage? 12:52:00PM

A. When she initially presented and was diagnosed, she was localized stage. But then she obviously now is extensive stage.

Q. Does localized stage mean that she did not have any distant or extrathoracic metastases at the time of diagnosis? 12:52:14PM

A. That is correct. Extrathoracic is the best word.

Q. Again, is that unusual for a patient diagnosed with this size of tumor, being a histologic cell type of small cell? 12:52:28PM

A. I don't know if it's unusual. Almost all of them end up with metastases outside of the chest. I would have to look that up to see what percent or extensive stage versus localized stage at initial diagnosis. I've seen many cases of both. 12:52:45PM

Q. I think you've answered my next question, but do you know what percentage of small cell lung cancer patients present with extrathoracic metastases at the time of diagnosis? 12:53:03PM

12:53:09PM

A. Again, I don't know. I would have to look that up. But that would be easy to find. That information would be in a book, cancer book, for example. 12:53:16PM

Q. Does the lack of extrathoracic metastases suggest to you in any way that Ms. Bullock may not have small cell carcinoma?

A. No.

Q. Do you have an opinion as to when Ms. Bullock's tumor started? 12:53:28PM

A. You could at least roughly calculate that if you made a couple of assumptions. If you made it that the average doubling time is 50 days and that her tumor was -- we'll just say an average of we'll just say 10 centimeters. 12:53:44PM

And then you have to go back to this deal where it takes -- to get a tumor that's one millimeter in diameter, it takes 20 doublings. To get a tumor that is one centimeter in diameter, it takes 30 doublings. To get a tumor that's about three centimeters in diameter, it takes 35 doublings. And to get a tumor that's about ten centimeters in diameter, it takes 40 doublings. 12:54:07PM

So if we assume that her tumor is ten centimeters in diameter and it takes 40 doublings to produce that and the average doubling time of a small cell lung cancer is 50 days, that would be 40 times 50 or 2,000 days. And if you divided that by 365, that would be about -- that would be about five and a half years. 12:54:24PM

12:54:27PM

12:54:47PM

But if her tumor was growing more rapidly than that, like three days, if you use that doubling time of three days, then it would be three times 40. That's only 120 days. So that's almost explosive 12:55:17PM

growth. The 50 days is probably a better number to use.

Q. Can you tell from your review of Ms. Bullock's pathology or the medical records what her rate of growth was? 12:55:44PM

A. You can't tell it exactly. The only way you could tell are basically two ways. One would be if you actually had previous chest radiographs on her, then you can go back in time and see what the change was over time. You could then do that. And I 12:56:01PM actually have in my book a nomogram that you can actually plug in these numbers to and get it.

But if you don't have that, then you really kind of have to -- you could do some immunohistochemical studies to see what percent of 12:56:17PM

cells were actively making new DNA. And if you had 12:56:20PM that number, you could kind of have an idea of what the turnover rate is. But you could never get it exactly.

Q. Do you have an opinion as to when this tumor 12:56:33PM was detectable by any diagnostic method?

MS. WEISS: I'd like to object to the question as phrased, form of the question. Vague and ambiguous as to detectable.

THE WITNESS: That's a difficult question to 12:56:56PM answer because it kind of depends on the way you look at it.

If you were to take x-rays on Ms. Bullock prior to when she was diagnosed, she would obviously have an abnormality there at least, I would say, 12:57:09PM probably going back a few years.

But the thing is though is that unless for some reason she became symptomatic and had some type of complaint, nobody would have ever looked at her unless for some uncommon reason she was in one of 12:57:24PM these studies that look to see if screening programs can prevent or can alter the natural history of lung cancer.

So if you had some way in retrospect to have said she had a chest radiograph three years ago, you 12:57:40PM

probably could have detected it then radiographically. 12:57:43PM

BY MS. TANG:

Q. When you say radiograph --

A. I mean by a standard PA chest radiograph. But if she was not symptomatic, there wouldn't have 12:57:51PM been any reason for her to have obtained a chest radiograph unless, like I said, she was in some type of screening study.

Q. So if Ms. Bullock had a chest x-ray taken about three years ago, it's your opinion that some 12:58:06PM sort of mass may have been detectable at that point?

A. I think that's true on a more-probably-than-not basis, at least a 50 percent chance. But that's also based to a certain degree though on how fast the tumor is growing. And if she 12:58:22PM by chance had one of those explosive-growing tumors that had a doubling time of three days, she might have not seen anything.

Q. It's your opinion that Ms. Bullock's lung cancer is a primary tumor; correct? 12:58:41PM

A. Yes.

Q. What is that conclusion based on?
A. Based on the fact that this is a well recognized type of primary lung cancer and that this tumor has the histologic and immunohistochemical features of a primary small cell lung cancer. 12:58:52PM

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Q. I'd like to introduce -- I actually don't have to introduce them as exhibits because I believe we've already marked them, but what I'd like to turn to next are the pathology reports authored by Dr. Denise Van Horn at Hoag Memorial Hospital. 12:58:57PM 12:59:15PM
A. All right.
Q. Did you locate the reports?
A. Yes, I have. Right here.
Q. Okay. I want to focus on the report that corresponds to the left upper lobe biopsy. 1:00:29PM
A. The biopsy, okay, sure. Right here. 340 -- 3042-01.
MS. TANG: I'm going to mark the pathology report authored by Dr. Denise Van Horn at Hoag Memorial Hospital dated February 23, 2001, corresponding to the lung biopsy, left upper lobe mass, in pathology number 3042-01 as the next exhibit in line. 1:01:45PM
(Defendant's Exhibit 16 was marked for identification and is annexed hereto.)
BY MS. TANG:
Q. Dr. Hammar, this is the same report that you have in your files; correct?
A. It is, yes. 1:02:49PM

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Q. You have read this pathology report in preparation for this case; correct? 1:02:51PM
A. I have.
Q. Dr. Hammar, what is Dr. Denise Van Horn's diagnosis on this report? 1:03:03PM
A. Poorly differentiated carcinoma of small cell type.
Q. I take it you agree with Dr. Van Horn's diagnosis?
A. I do. 1:03:15PM
Q. Did Dr. Van Horn make any findings inconsistent with a diagnosis of small cell carcinoma of the lung?
A. No.
Q. Let's take a look at the immunohistochemical stains done by Dr. Van Horn. 1:03:26PM
A. Okay.
Q. And you have viewed slides upon which these stains were performed, correct, and upon which the report is based? 1:03:39PM
A. I did not see any of the immunohistochemical stains myself. I only had the H and E stained section. So I did not have the immunostained sections. I did look at her report.
Q. Do you have an understanding of where the 1:03:57PM

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stain pathology slides are located? 1:04:00PM
A. Well, again it depends on whether they sent them to somebody and somebody has them or they had them in their own department and didn't send them to me. I don't have any way of knowing. I knew what she said that they showed and I also read the AFIP report 1:04:14PM

and saw what they reported.
Q. So the slides that you viewed did not have the immunohistochemical stains on them except for the H and E? 1:04:30PM
A. Yeah. I'll try to explain this to you.
The normal specimen that is processed is embedded into what's called a block that's wax, and there would be multiple little pieces of tissue in it. And that would be the specimen. 1:04:45PM
And then this block is put into this machine called a microtome. And you can take these very thin sections of it and each section is put onto a glass slide that's about 2 3/4 by 3/4 by 1/8.
And standard dyes that pathologists use to stain tissue are called hematoxylin, h-e-m-a-t-o-x-y-l-i-n, and eosin, e-o-s-i-n. And that stains the nuclei of cells blue or kind of purple-ish/blue and the cytoplasm of cells pink. And so that's what I had. 1:05:02PM 1:05:23PM

Q. That's so you can differentiate between the nucleus and the cytoplasm? 1:05:24PM
A. Yes. But that also helps you to just try to determine what type of tumor it is. For example, if you've seen one small cell carcinoma of the lung you've basically seen them all because they all look the same. 1:05:33PM
And then in this case they also did immunohistochemical studies and it appeared they did immunohistochemical studies at the treating hospital. And then the Armed Forces Institute of Pathology organization also did their own immunohistochemical studies. 1:05:44PM
And I can tell you about both of them and what they found, but that's what they did. And I guess they were doing that just to make certain that this was a small cell carcinoma and to rule out one very treatable disease which would have been a small cell lymphoma. 1:05:59PM
Q. So from your independent view of these slides which had nothing more than the normal H and E stains applied on them, you made an independent diagnosis of small cell carcinoma? 1:06:14PM
A. Right. And it was only one slide. And it was just like a single slide stained with hematoxylin and eosin. 1:06:30PM 1:06:34PM

Q. This was slide 3042-01?
A. That's correct.
Q. You have not viewed any slides that have any type of immunohistochemical stains; correct? 1:06:51PM
A. I have not. I just looked at the reports both from the treating hospital and from the Armed Forces Institute of Pathology.
Q. Thank you. Turning back to Dr. Van Horn's report, would you walk me through the stains and give me a description of the significance of the stain results? 1:07:03PM
A. Sure. She did stains for what's called a pankeratin, which she said was negative. And there are so many different pankeratin antibodies that I would have to know exactly which ones she used. 1:07:16PM
Q. You can't tell from the report?

A. No. And basically you would expect most small cell carcinomas to express one of the different keratin molecules. There are actually 20 different subtypes of keratin. And most small cell carcinomas would contain a low molecular weight keratin, maybe keratin 8 or 18. And if your pankeratin antibody had that antibody to get that molecular species of keratin, you would expect a positive stain. But if it didn't, you wouldn't. 1:07:32PM 1:08:01PM

1:08:04PM

So a negative keratin doesn't really tell for certain if it is or is not a small cell carcinoma. In the majority of the cases you would see a positive stain. 1:08:15PM

The pankeratin antibody that we use is called an AE1/AE3. And that has antibodies against ten different molecular species of keratin. And I would say in about 95 percent of all cases of small cell carcinoma of the lung you would see staining. But there's about 5 percent that you do not. So a negative doesn't really tell you one way or another. 1:08:36PM

Then the next one they did --

Q. A negative then doesn't indicate that small cell is ruled out? 1:08:51PM

A. That's correct, it does not.

The next one they did was called a leukocyte common antigen which is also called CD45. And the reason they did that was to determine if those cancer cells were lymphoma. And that was negative in this case, which is important because that would strongly rule against lymphoma in that I would say 99-percent-plus of lymphomas would be leukocyte common antigen positive. 1:09:05PM

And then they did some tests that are more specific for this group of neuroendocrine neoplasms. They did a test for what's called synaptophysin and another test for a substance called chromogranin, c-h-r-o-m-o-g-r-a-n-i-n, capital letter "A." And these are specific neuroendocrine markers. 1:09:22PM

1:09:25PM 1:09:51PM

Synaptophysin is a protein that was isolated from the brain of a cow, but it's fairly specific for neurons and neuroendocrine cells.

Chromogranin-A is a protein present in the neuroendocrine granules of neuroendocrine cells and is seen in all types of neuroendocrine tumors. 1:10:08PM

And then thyroid transcription factor 1, which is the next one they did, which is abbreviated TTF1, is a transcription factor against a few different things, one of which are neuroendocrine type proteins. 1:10:30PM

So in this case they stated that the synaptophysin was positive, the chromogranin was positive, and the --

Q. Does that mean that they are -- that it shows that it is a neuroendocrine tumor? 1:10:44PM

A. Yes.

Q. Is a small cell tumor a neuroendocrine tumor?

A. Yes. And so these are all positive. And that's what you would expect. 1:11:03PM

Sometimes the chromogranin is negative. And that kind of depends on how many neuroendocrine 1:11:05PM

granules you can find in the tumor cells.
Q. In the case of small cell, what percentage of small cell lung cancer tests positive for synaptophysin? 1:11:19PM
A. I would say about 80 percent.
Q. What about for chromogranin?
A. I would say only about 30 percent. The best marker is that last one, the TTF1. 1:11:38PM
Q. So a negative chromogranin stain doesn't rule out small cell?
A. That's exactly correct.
Q. Let's move on to TTF1.
A. That was positive. And that's probably the best. And I would say at this point in time I think that's the most specific marker there is. And what this is is a transcription factor for certain proteins that are neuroendocrine type proteins. 1:11:53PM
Q. So if in the pathology slides that you viewed there were stains and the stains were as reported, as Dr. Van Horn reported, you would have diagnosed small cell lung cancer? 1:12:13PM
A. I would have. But I would have diagnosed it even without those stains. 1:12:27PM

Q. Which is what you did? 1:12:32PM
A. I did, yes, that's correct.
Q. Do you know Dr. Denise Van Horn?
A. I do not.
Q. Do you know her by reputation? 1:12:40PM
A. No.
Q. Thank you, Dr. Hammar. Let's move on to the pathology report authored by Teri Franks.
A. Okay.
Q. And we have already marked this as what looks like the second page of Exhibit 14. 1:13:07PM
A. Yes. Exhibit 14 or 12? I thought it was 12.
MS. WEISS: The medical record? Exhibit 14 --
BY MS. TANG: 1:13:32PM
Q. It may also be --
A. It's part of 12, too. Okay, I know what you mean.
MS. WEISS: Do you know what you mean?
THE WITNESS: This report right here. 1:13:41PM
MS. WEISS: It's in 12 and 14. Are you going to mark it separately or --
BY MS. TANG:
Q. Is it in 14 in your pile?
A. I don't think -- mine only goes to 13. I don't have anything past 13. What I think I probably did is I took this apart, but I thought I stapled it back for you. When I copied this, I know that I stapled this one all together as one. 1:13:55PM

MS. TANG: We'll mark this as Exhibit 17. This is a pathology report authored by Dr. Denise Van Horn. It is dated March 8, 2001. 1:14:02PM 1:14:20PM
THE WITNESS: Not Denise Van Horn. Teri Franks.
MS. TANG: I'm sorry. Authored by Teri J. Franks to Denise Van Horn dated March 8, 2001. 1:14:34PM
(Defendant's Exhibit 17 was marked for identification and is annexed hereto.)

BY MS. TANG:
Q. Again, you reviewed this report in preparation for this case; correct? 1:15:25PM
A. Yes.
Q. What is Dr. Frank's diagnosis?
A. Her diagnosis from the left upper lobe biopsy was small cell carcinoma. 1:15:39PM
Q. Do you agree with this diagnosis?
A. Yes.
Q. Let's look again at the immunohistochemical stains.
A. Okay. 1:15:49PM

Q. Would you do the same thing and walk me through the stains and -- 1:15:55PM
A. Sure.
Q. -- significance of the stain results?
A. They did immunohistochemical stains I assume on sections from the block. And they stated that their stain for pankeratin was positive, which is in contrast to the treating hospital stain which was negative. But I think I have explained that. 1:16:00PM
Q. I'm sorry to interrupt. You said that they did their stains from the block? 1:16:17PM
A. Right. Remember I told you that the tissue is put into that paraffin block and a very thin slide is made or slices of the block made and they put it on a slide? 1:16:34PM
Q. Right.
A. So if somebody sent them the block -- and they kind of indicate they did because if you look down there at the bottom they say your blocks or block will be returned -- 1:16:45PM
Q. Under separate cover.
A. So I assume that they had block S01-3042. So what they did was put that block into the machine, cut a bunch of other slices put onto what are called supercharged slides to do these immunohistochemical 1:16:59PM

tests. And then they did their battery at the AFIP and they came up with a positive pankeratin, positive CD56, and a positive TTF1. 1:17:02PM

And then they stated that synaptophysin, chromogranin, leukocyte common antigen were negative. So you can see that they are different from -- in both places. 1:17:25PM

They found a positive keratin, a positive what's called Leu-7, L-e-u, dash, 7, and a positive TTF1. And they found a negative chromogranin and a negative synaptophysin and a negative leukocyte common antigen. 1:17:40PM

And that pattern that they found is also totally consistent with a small cell carcinoma. And, as I said, I think the best marker at this point in time is the thyroid transcription factor 1. 1:18:02PM
Q. It looks like Dr. Franks did one additional. immunohistochemical stain?
A. She did.
Q. And that is the CD56; is that right? 1:18:19PM
A. Right.
Q. What does that stain test for?
A. "C" stands for cluster, "D" stands for designation. And there are now about 150 CDs. And

they're not the CDs you're thinking of. 1:18:34PM

Q. There are millions of those. 1:18:38PM
A. But there are a bunch of different substances that go under these cluster designations that recognize different substances that are in or on cells. And it turns out that this one I think is for 1:18:48PM Leu-7, which identifies a type of lymphocyte, but it also identifies neuroendocrine cells.
What the CD56 is is a molecule that's present in neuroendocrine cells. And they found that to be positive, which is what you would find in many 1:19:09PM neuroendocrine neoplasms.
Q. Can you spell Leu-7.
A. L-e-u, dash, 7.
Q. Are the stain results reported by Dr. Franks more consistent or less consistent than the stain 1:19:25PM results reported by Dr. Van Horn with a diagnosis of small cell lung cancer?
MS. WEISS: Objection. Form of the question. As to the phrase "more consistent," vague and ambiguous. 1:19:45PM
THE WITNESS: You know, it's kind of the way you look at it. Both of them are consistent with small cell carcinoma. And then you get back to what percent of positive staining would you see.
I would say in pankeratin, if you use that 1:19:58PM

AE1/AE3 keratin, about 95 percent are positive. If 1:20:03PM you use that antibody, about 95 percent of small cell carcinomas are positive and about 5 percent are negative.
With the CD56 antibody, in my experience 1:20:39PM less than 50 percent of small cell carcinomas are positive.
In my experience with the thyroid transcription factor 1 antibody, 100 percent of small cell lung cancers are positive. 1:20:56PM
Synaptophysin in my experience, about 80 percent are positive.
And with chromogranin in my experience about 30 percent are positive.
MS. WEISS: And I should have added to my 1:21:11PM objection that it assumes facts not in evidence that either one is more or less consistent with small cell.
BY MS. TANG:
Q. Dr. Hammar, do you have an opinion as to why there was discrepancy between the stain results? 1:21:26PM
MS. WEISS: Objection as to what is discrepancy. I don't know -- that also assumes facts not in evidence, that there is any sort of discrepancy.
THE WITNESS: There could be different 1:21:42PM

reasons. Number one would be different antibodies. 1:21:44PM
Number two would be different techniques that are used, although they might or -- may or may not be the same. Maybe in one laboratory they used what's called antigen retrieval and in another laboratory 1:22:00PM they did not.
There's always the possibility that in one part of the tumor you can have a positive test and in another part of the tumor you might have a negative

test because of different expression of different genes by the individual cancer cells. 1:22:16PM

That would be at least three possible reasons.

BY MS. TANG:

Q. Any others? 1:22:31PM

A. Those would be the ones that would come to mind.

Q. Do you know Dr. Teri Franks?

A. I do not.

Q. Did you ever review the bronchial washing and bronchial brushing cytology report authored by Dr. Denise Van Horn at Hoag? 1:22:56PM

A. Yes.

Q. Are the results of those two reports consistent with your diagnosis of small cell lung cancer? 1:23:10PM

A. Yes. 1:23:12PM

Q. Anything in the reports that are inconsistent?

A. No. 1:23:16PM

Q. What is the basis of your opinion that Ms. Bullock's small cell lung cancer was caused by smoking?

A. It's based on epidemiologic evidence that shows that there's a significantly elevated incidence of this type of disease in people that are cigarette smokers versus people that are not cigarette smokers. 1:23:41PM

Q. What about facts specific to Ms. Bullock?

A. I don't think you can use anything fact-specific to indicate causation. There is nothing that you can look at that's going to tell you that her cancer was caused by cigarette smoke. But the epidemiologic data strongly indicates that to be the case. 1:23:59PM

Q. So you cannot determine causation by your review of the pathology or medical records; correct? 1:24:16PM

A. That is correct.

Q. In this case what information regarding Ms. Bullock did you use to determine that cigarettes were the cause of her small cell lung cancer? 1:24:30PM

A. I reviewed the information that was initially sent to me from Mr. Piuze's law office which I believe stated that she had about a 45-pack-year history of cigarette smoking. And in the medical records there were indications that she may have had as high as 60-pack years of smoking. She quit smoking in February 2001. 1:24:31PM 1:24:44PM

Q. Is there any other information specific to Ms. Bullock that you base your causation opinion on?

A. No. 1:25:09PM

Q. Again, you have not spoken with Ms. Bullock or interviewed her; correct?

A. That is correct.

Q. Everything you know about Ms. Bullock's past smoking history was obtained through the medical records sent to you by Mr. Piuze's office and the letter that was sent to you by Mr. Piuze's office? 1:25:23PM

A. Yes.

Q. What is the basis of your opinion that Ms. Bullock will die from her disease? 1:25:46PM

A. Experience.
Q. Do you have a prognosis for Ms. Bullock?
A. Yes.
Q. What is that prognosis?
A. She is going to die from this cancer. 1:26:04PM

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Q. You have not reviewed any of Ms. Bullock's more recent records; correct? 1:26:12PM
A. That is correct.
Q. Generally what percentage of small cell lung cancer patients survive beyond six months of their diagnosis? 1:26:22PM
A. What you would read in the literature would be anywhere as high as up to 20 percent. What I think happens in reality is less than 5 percent.
Q. What about survival beyond one year of the time of diagnosis? 1:26:46PM
A. There would be a certain percentage that would survive. And again it depends on what you read in the literature. The highest number I have ever seen in the literature would be 20 percent. What I have seen myself is basically less than 1 percent. 1:26:57PM
Q. You are not an expert in psychology; correct?
A. No, I am not.
Q. You are not an expert in psychiatry?
A. That's correct, I am not. 1:27:16PM
Q. You are not an expert in pharmacology?
A. That's correct.
Q. Smoking behavior?
A. That's correct.
Q. You are not an expert in epidemiology; 1:27:26PM

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correct? 1:27:30PM
A. I am not an expert in that. I have read a great deal of epidemiologic type articles as a pathologist interested in cancer, but I am not an expert in that, I'm not board-certified in that, and I do not have a degree in epidemiology. 1:27:40PM
Q. You will not be offering an expert opinion on epidemiology in this case?
A. I don't think so.
Q. You have never conducted epidemiological studies regarding smoking and the risks of lung cancer; correct? 1:27:55PM
A. That's not totally true. That's what we're doing right now in this pseudomesotheliomatous study. And I am not going to be the epidemiologist, but I have done the work to get the data to the epidemiologist. 1:28:08PM
Q. Are you an expert on substance abuse?
A. No.
Q. And I take it you are not an expert on addiction? 1:28:20PM
A. That's correct.
Q. Do you plan on doing any additional work for this case between now and trial?
A. No. 1:28:31PM

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Q. Do you plan to review any of the depositions taken in this case? 1:28:37PM
A. I think it would depend a little bit on what Mr. Piuze wanted me to do. I would say the only deposition that I think might be helpful or 1:28:58PM

potentially helpful would be maybe Ms. Bullock's deposition, which I guess would be firsthand evidence of what her smoking history was. But I would only do that if Mr. Piuze or his staff wanted me to do that.

Q. You do not plan to prepare any further reports; is that correct? 1:29:18PM

A. That's correct.

Q. You do not plan to conduct any tests on pathology; correct?

A. That's correct. 1:29:29PM

Q. Do you plan to prepare any demonstratives for trial, including photomicrographs?

A. I think again that would depend on what Mr. Piuze wanted. I would say that that's probably a chance. There's always a possibility that Dr. Feingold may have already done that. 1:29:45PM

I have a lot of examples of small cell lung cancer, both microscopic and also what it looks like when you look at small cell lung cancer with your own eyes. And I don't know whether that would be appropriate for this case or not. I would basically do what I was asked to do. 1:30:04PM

Q. You are aware that Dr. Feingold has been designated as an expert witness to testify on behalf of plaintiff in this case? 1:30:06PM

A. Yes. 1:30:16PM

Q. How do you know that information?

A. Because I read it in one of the documents I had and because in the other cases, or at least two other cases I have been involved with in cigarette litigation, he's also been an expert witness on behalf of the plaintiff. 1:30:27PM

Q. Dr. Hammar, if you do any additional work between now and trial or if you develop any additional opinions or change your opinions, I request that you inform the defense immediately. Is that all right? 1:30:43PM

A. Yes.

Q. I also request that we be allowed to reopen this deposition in that event. 1:30:52PM

A. That's fine with me.

Q. Did the opinions you expressed today and in your report differ in any respect from the opinions you gave in prior testimony other than those that are plaintiff-specific? 1:31:10PM

A. No. 1:31:12PM

Q. Do you expect to testify about anything that we have not yet discussed today?

A. Not that I can think of now.

Q. I don't think I have any more questions, but I'd like to take a five-minute break to clean things up over here and we'll readjourn in about five minutes. 1:31:27PM

A. Okay.

MS. WEISS: Okay. 1:31:37PM

(Recess taken.)

(Defendant's Exhibit 18 was marked for identification and is annexed hereto.)

BY MS. TANG:

Q. I have marked as Exhibit 18 documents from your file that we have not yet marked. 1:37:13PM

I have no further questions, Dr. Hammar. Thank you very much for your time.

A. Thank you.

MS. WEISS: I don't have any. 1:37:28PM

MS. TANG: We'll enter the stipulation that the court reporter is relieved of her duties and responsibilities to maintain the original transcript;

The original transcript will be delivered to Dr. Hammar, who will have 30 days or 24 hours before 1:37:38PM

the time he testifies at trial, whichever is sooner, 1:37:43PM to sign and return the original transcript to me at my law offices of Arnold & Porter; defense counsel will retain the original transcript;

In the event the original is not signed or 1:37:54PM returned or is lost or destroyed, a certified copy shall have the same force and effect as the original.

So stipulated?

MS. WEISS: So stipulated.

(TIME NOTED: 1:38 P.M.)

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct.

Executed on _____, 2002, at _____, _____.

_____

SIGNATURE OF THE WITNESS

STATE OF CALIFORNIA) ss:

COUNTY OF LOS ANGELES)

I, IRMA C. HOGAN, C.S.R. 4877, do hereby certify:

That the foregoing deposition testimony of SAMUEL P. HAMMAR, M.D., was taken before me at the time and place therein set forth, at which time the witness, in accordance with CCP Section 2094, was placed under oath to tell the truth, the whole truth, and nothing but the truth;

That the testimony of the witness and all objections made by counsel at the time of the examination were recorded stenographically by me, and were thereafter transcribed under my direction and supervision, and that the foregoing pages contain a full, true, and accurate record of all proceedings and testimony to the best of my skill and ability;

I further certify that I am neither counsel for any party to said action, nor am I related to any party to said action, nor am I in any way interested in the outcome thereof.

IN WITNESS WHEREOF, I have subscribed my name this 2nd day of February, 2002.

_____

IRMA C. HOGAN, CSR No. 4877

I N D E X
VOLUME I

Tuesday, January 22, 2002

DEPOSITION EXHIBITS
SAMUEL P. HAMMAR, M.D.

NUMBER	DESCRIPTION	IDENTIFIED
1	Curriculum Vitae	6
2	August 16, 2001, letter from Paula Lawlor to Samuel Hammar	16
3	August 23, 2001, letter from Samuel Hammar to Paula Lawlor	18
4	September 7, 2001, letter from Paula Lawlor to Samuel Hammar	19
5	November 12, 2001, letter from Geraldine Weiss to Samuel Hammar, with enclosed patient history	19

DEPOSITION EXHIBITS (CONTINUED)
SAMUEL P. HAMMAR, M.D.

NUMBER	DESCRIPTION	IDENTIFIED
6	November 21, 2001, letter from Geraldine Weiss to Hoag Memorial Hospital	20
7	November 21, 2001, letter from Geraldine Weiss to Samuel Hammar	22
8	Diagnostic Specialties Laboratory information form re materials received	22
9	December 24, 2001, letter from Tracy Sorokin to Samuel Hammar, with enclosed Notice of Expert Witness Depositions	24
10	January 16, 2002, letter from Sonia E. Revolorio to	25

Samuel Hammar; deposition confirmation sheet

DEPOSITION EXHIBITS (CONTINUED)
SAMUEL P. HAMMAR, M.D.

NUMBER	DESCRIPTION	IDENTIFIED
11	"Mail Message" from Paula Lawlor to Samuel Hammar dated November 27, 2001	26
12	December 3, 2001, letter from Denise Van Horn to Samuel Hammar with enclosed reports and indicating enclosure of slides	39
13	Report of Samuel Hammar, M.D.	44
14	Medical records/reports from witness's file	50
15	Plaintiff's Expert Witness List	50
16	Hoag Memorial Hospital pathology report of 2-23-01	69

DEPOSITION EXHIBITS (CONTINUED)
SAMUEL P. HAMMAR, M.D.

NUMBER	DESCRIPTION	IDENTIFIED
17	March 8, 2001, letter/report from Teri J. Franks, M.D., to Denise Van Horn, M.D.	78
18	Remainder of witness's file documents	90